

DOCUMENT RESUME

ED 120 879

CS 501 330

AUTHOR Elkins, David
 TITLE Percepts of Tasks and Communication Dispersion
 Potential in Working Groups.
 PUB DATE 75
 NOTE 34p.; Study prepared at Southern Illinois
 University
 EDRS PRICE MF-\$0.83 HC-\$2.06 Plus Postage
 DESCRIPTORS Communication (Thought Transfer); Goal Orientation;
 Group Dynamics; *Intercommunication; *Organizational
 Communication; *Role Perception; *Task Analysis; Task
 Performance; Work Attitudes; *Work Environment

ABSTRACT

The purpose of this study was to examine the relationship between individual group members' concepts of tasks and their tendency to communicate with each other about tasks as related to the groups' abilities to adapt to the demands of a dynamic environment. Data was gathered from five persons in the Audiovisual Support group of the American Airlines Flight Academy and from nine department heads of the staff of Doctors' Community Hospital in Hurst, Texas. All subjects were interviewed to determine the types of tasks in which they were involved as an ongoing situation. Results indicate that there is a relationship between group members' percepts of tasks and their individual tendencies to communicate within the group across symbiotic and synergistic lines. Additionally, this relationship seems dependent upon the effects of organizational design on the saliency of the goals of tasks undertaken by groups and the perceived differentiation of individual group members' task capabilities. (JH)

 * Documents acquired by ERIC include many informal unpublished *
 * materials not available from other sources. ERIC makes every effort *
 * to obtain the best copy available. Nevertheless, items of marginal *
 * reproducibility are often encountered and this affects the quality *
 * of the microfiche and hardcopy reproductions ERIC makes available *
 * via the ERIC Document Reproduction Service (EDRS). EDRS is not *
 * responsible for the quality of the original document. Reproductions *
 * supplied by EDRS are the best that can be made from the original. *

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.

Percepts of Tasks and Communication
Dispersion Potential in Working Groups

David Elkins

Southern Illinois University at Carbondale

ED120879

OS 501 330

Abstract

The purpose of this paper is to report the results of a study of working group members' percepts of tasks and their potential for diffuse communication about tasks in two naturally situated groups--the staff of Doctors' Community Hospital at Hurst, Texas and the Audio-Visual Support Group of American Airlines Flight Academy at Dallas-Ft. Worth, Texas. The study is predicated upon clarifying the relationship between percepts of tasks and communication within the group as related to the groups' ability to adapt to the demands of a dynamic environment.

The results of the investigation indicate that there is a relationship between group members' percepts of tasks and their individual tendencies to communicate within the group across symbiotic and synergistic lines. Additionally, this relationship seems dependent upon the effects of organizational design on the saliency of the goals of tasks undertaken by groups and the perceived differentiation of individual group members' task relevant capabilities.

The implications are that organizational design and the rhetoric of management concerning the goals of the efforts of the group and the role relationships of individual group members to the tasks undertaken may have a substantial effect on the organization's ability to adapt.

Percepts of Tasks and Communication
Dispersion Potential in Working Groups

Introduction

The purpose of this study is to empirically examine the relationship between individual group members' concepts of tasks and their tendency to communicate with each other about tasks. The interdependent task group is one in which the contributions of each individual group member toward the accomplishment of tasks determines the performance of other group members. Coordination of effort is imperative for task accomplishment. Individual members' ability to cooperate is dependent upon their ability to communicate freely and interactively with each other about tasks that confront them. When individual group members display the tendency to initiate and be receptive to communication about task accomplishment strategies with other group members, they may be said to have this ability.

Organizations are collections of individuals who are functionally related to each other because of their application of effort for the accomplishment of tasks. Tasks are conceptualized by members of organizations as a conglomerate of: (1) some goal which the task is supposed to accomplish,

(2) a decision or behavior strategy which will bring the different skills, abilities, and value systems of the members to bear on the accomplishment of the goal, and (3) the relationship of individual members to that strategy.

As tasks are defined for individual group members, the functional relationships of group members to each other are defined. Concurrently, the communication structure of the organization is defined, in that group members will communicate information relevant to the accomplishment of tasks along channels between members who stand in some functional relationship to each other because of their individual relationships to the particular task. Thus, as the group members' concepts of tasks vary, the group members will manifest communication behavior, relevant to those tasks, from which can be inferred the group members' concepts of the organization itself. These concepts will determine how the group members coordinate their activities.

It is the function of management to define tasks which are to be accomplished by the organization. If management is to control the group members' application of abilities to tasks and encourage collectivization of effort, then management must be able to knowledgeably employ its actual resource of organizational power--control of task relevant information.

Overlaying each question of the optimal arrangement of such controls is the necessity for free and uninhibited interaction of all group members, regardless of skills and abilities, so that the organizational problem of deciding what communication restrictions should be ultimately imposed for the solution of any specific problem can be resolved. Specific problems require specific controls on information flow for efficient solution, but the general problem of deciding on the specific controls requires the potential for unrestricted communication within the organization. Such freedom of communication appears to be the result of the group members' concepts of the organization as a whole which are formed as a result of the perceived relationship of the individuals to the tasks that are undertaken by the organization. Since management is primarily concerned with defining those relationships, it is critical that a specific understanding of the relationship between group members' concepts of tasks and their tendency to be receptive to task relevant communication with other group members be gained.

Statement of Problem

Collectivity of effort is inherently necessary for productivity in the interdependent task group. The business man or industrialist or educator assembles a collection of

people with diverse expertise and skills because the complexities of the tasks that confront him demand the application of the collective efforts of several individuals. His problem becomes one of the coordination of the diverse capabilities of the members of his group for the accomplishment of the common goals of the group. He must somehow help group members of differing genre find a basis upon which they can begin to agree on the course of actual applied work activity.

Such an endeavor implies that the initial communication situation that must override the organizational situation must be one characterized by complete freedom of communication inhibitions that may exist as a result of the diversity of abilities which is ultimately the task specific strength of the organization.

Researchers and practitioners alike have intuitively turned to the concept of group cohesiveness as a solution to the organizational problem. It was expected that strong social cohesiveness would encourage the communicative freedom necessary for the assessment of specific task relevant communication arrangements. However, no consistent relationship has been found between social cohesiveness and group productivity. (The term cohesiveness itself has been found to be rather vague and meaningless in that it cannot be

operationally observed in the communicative behavior of task-oriented groups.)

The variations of the communication tendencies of group members seem to be explained by the variations in the requirements of tasks as understood by group members. Communication channels in organizations tend to evolve as the result of the group members' understandings of the functional relationships between themselves and other group members which comprise their concepts of the tasks that confront them.

Tasks, then, that are conceptualized by group members as requiring more group effort to accomplish should evolve communication structures that are less restricted within the group than tasks that seem to require the abilities of only certain individuals within the group to accomplish.

Since the organizational problem of task-oriented groups requires freedom of communication in the group for resolution, and since the communicative tendencies of the group members appear to be determined by the group members' concepts of the tasks that confront them, it is the problem undertaken by this study to clarify the relationship between the group members' concepts of group tasks and their tendencies to communicate freely and interactively about those tasks within the group.

Review of Pertinent Literature

Stogdill (1972) conducted an extensive review of the literature concerning group productivity, drive, and cohesiveness. After examining the results of over sixty studies, he concluded that there is no relationship between group productivity and cohesiveness under routine operating conditions. (The exception was under conditions of "high group drive," that is, when group members were constantly coerced into concentrating their communication along task relevant lines.)

Specific support of Stogdill's conclusion is found in the study of Stinson and Hellebrandt (1972) which found no correlation between group cohesiveness and productivity in ex post facto examination of several simulated student "companies" that were set up in conjunction with exercises in management in an upper level undergraduate university course. It appears that social cohesiveness does not contribute to the group's ability to solve the problem of coordination of effort.

From the early fifties through the early seventies, a great deal of research was conducted on the development of communication channels in task-oriented groups, based on the formulations of Bavelas (1968). The more notable early experimenters, Smith (See Bavelas, 1968), Leavitt (1951),

Guetzkow et. al. (1968, 1957, 1955), established that members of task-oriented groups tend to form lines of communication adjusted to the demands of the task with which they are confronted. Later studies by experimenters such as Cohen and Bennis (1961), Lawson (1965), Heise and Miller (1951), and Shaw (1954), indicated that the initial communication networks that are imposed on group members affect the group's abilities to adapt their group communication system for various tasks presented to them. The results of field studies in the area, those of Davis (1969) and Weicksberg (1968), suggest that communication networks in operating organizations form as a result of the group members' concepts of the task relevant functions of the other individuals in the organization rather than as a result of formally imposed restrictions on communication.

Given an initially unrestricted communication situation, group members will tend to restrict their communication to the optimal networks for accomplishment of the tasks undertaken as they develop concepts of their relationships to other group members relevant to that task. Initially imposed restrictions serve to inhibit optimalization of the organizational arrangement by restricting a complete development of concepts of other members' potential task related functions

and by blocking promulgation of specific organizational proposals throughout the group. Additionally, group members are more likely to be thrown into situations of direct competition for varying degrees of leadership roles, thus inhibiting the optimal application of task relevant knowledge where it may be needed most.

Thus, the "all-channel" communication network is the most desirable group situation for groups that require versatility in adjusting their efforts to varying tasks.

Thayer (1968) developed a general perceptual framework for group-task relationships in his concept of "integrative communication." He suggests that two kinds of group member-group member task relationships exist in organizations. They are "symbiotic relationships" and "synergistic relationships." Two group members may be said to be in a "symbiotic relationship" when they cooperate to produce a product that is no greater than a product potentially producible by either one of them alone. The product of a "synergistic relationship" is one which is the result of the efforts of individuals of differing capabilities; the product is greater than either individual could produce alone. Thayer suggests that the cooperative effort of individuals in task-oriented groups can be classified thusly, and that for any group to be "organiza-

tionally integrated," there must be free task relevant communication along both synergistic and symbiotic lines.

Thayer's point seems to be that although organizations require the cooperative effort of individuals of diverse capabilities in addition to the collective capabilities of individuals who have similar abilities, the two cannot be brought fully to bear on task accomplishment unless their maximum potential for free task relevant communication is available to all group members regardless of functional differences.

Difficulties arise, however, since because organizations are collections of individuals of differing genre, their expectations about their relationships to tasks are apt to be preconceived. For example, an architect would expect to be concerned with design contributions to a new building whereas, a finance specialist would expect to be concerned with the money considerations involved. In reality, the design and execution of a new building would probably involve the coordination of efforts of each in order to produce a building that is both well designed and financially feasible and profitable.

One would expect these preconceived task relationships to polarize communication along symbiotic lines and inhibit it along synergistic lines. Symbiotic relationships could

also inhibit communication if group members in such relationships see themselves in direct competition for task related functions within the same area. The same similarities and differences of capabilities, which are ultimately the source of task accomplishing power and adaptability, can act to inhibit the organization's ability to configure organizational arrangements that are the most effective for each changing task that it encounters. Such an ability is the result of the organization's capability to sustain integrative communication throughout its functioning.

Therefore, tasks need to be initially conceptualized by group members in a way that encourages uninhibited task relevant communication throughout the group along both synergistic and symbiotic channels.

Generation of Hypothesis

More specific consideration of studies in the area of the development of communication patterns in organizations suggests two concomitants of task concepts that should affect group members' tendencies to initiate and be receptive to communication about tasks with all other group members.

(1) Clarity of group goal and group path to goal: Raven and Reitsema (1957) found that subjects working in experimental task group situations which were presented their tasks in a

manner that made clear the group goal and group paths to goal had greater feelings of "group belongingness" and displayed greater sympathy with group emotions. The group goal was expressed in terms of the end product of the groups' efforts; the group path to goal was expressed as the general procedure that was to be followed by the group in order to produce the product. The specific relationships of individual group members to the task procedure were not specified in the instructions to the subjects. The experimental task situation was not entirely analogous to that which would be encountered in working organizations in the field since neither the subjects nor the confederates as perceived by the subjects, brought with them to the group situation any abilities more task specific than any other group member. Therefore, the experimental task as perceived by the subjects could not be related to individual abilities in a way which might cause subjects to develop pre-conceived notions of how such a group should specifically channel its communication.

Other studies (Guetzkow, 1968 and Guetzkow and Dill, 1957) have indicated that group members positioned in laboratory imposed communication networks so as to be more likely to gain a clear picture of the product required of the group and the general group procedure necessary to produce that

product had a higher opinion of the group as a whole and of the performance of the group.

Such findings suggest that as individual group members have a clear picture of the group goal and group paths to the goal, they should be more receptive to and tend to initiate more task relevant communication with all other group members in so far as greater feelings of group belongingness, sympathy with group emotions, and a high opinion of the group would contribute to such a tendency.

(2) Specification of individual task relationships within the group: As group members in laboratory situations developed concepts of the task related roles of other individuals in the group, they restricted their communication to channels along the functional lines suggested by those role differentiations. Guetzkow (1968) found that groups responded to organizational suggestions, of other group members, which specified certain individual task relationships within the group, by restricting their communication along channels that formed as a result of the role differentiation suggested. In experiments which varied the type of network available to group members from organizational planning periods to task operational periods, Guetzkow and Dill (1957) found that restrictions imposed during the operational periods restricted free communication

in the planning periods by placing group members in direct competition for task relevant functions. It was suggested by the experimenters that the competition was most restrictive to free planning communication when group members of similar intelligence levels were in such competitive positions. Shaw (1954) found that if specific individuals in task-oriented groups initially possessed more information necessary to the solution of experimental problems, the communication pattern in the group was likely to adjust itself so that those specific group members were given roles of leadership within the group. Members of the laboratory groups would restrict the communication of the group to polarize with the lines of functional relationships to tasks suggested by the unequal distribution of information.

Generalized to actual working situations in the field, the results of these studies suggest that group members are likely to identify specific individuals within their work group whom they feel should have specific roles to play in accomplishing the tasks undertaken by the group, while on the other hand, they may perceive the task to be accomplished as fulfilling some general group goal and requiring a certain procedure on the part of the group as a whole for accomplishment. The former perceptions may cause members to restrict

their communication about the task along functional lines suggested by the roles they have identified. The later perceptions would seem to cause group members to communicate more freely with all group members about the task. In order to test the validity of such suggestions, the following hypothesis was formulated:

- (A) As group members conceptualize a specific task as having a clear group goal and a clear group path to the goal, and
- (B) as group members do not identify specific persons within their work group as having unique roles to play in the accomplishment of the task,
- (C) they will have a greater tendency to communicate with more members of the group about the given task.

Method

Two groups in natural field settings were selected for study. One group was the Audio-Visual Support Group of the American Airlines Flight Academy. Data was gathered from five of the six persons involved in the group. Those persons studied were an audio-visual specialist involved primarily with the operation of the industrial level television studio, a cinema specialist, a still photography specialist (There are two such specialists in the group, but one was involved

in an assignment on location and was not available for study.), a general production specialist who was involved primarily in the production of "slide-tape" packages and who also did some general administrative work for the AVS Group, and a slide cataloguing specialist who also was involved in some production work. The group also included a department head who was the group's liaison with other department heads and the higher organizational levels of the Flight Academy. Data was gathered from the five members of the "working body" of the group.

The other group studied was composed of nine department heads of the staff of Doctors' Community Hospital in Hurst, Texas. They included: the Comptroller/Purchasing Agent, the Business Office Manager, the Medical Records Supervisor, the Head Nurse, the Operating Room Supervisor, the Dietary Specialist/Kitchen Supervisor, the Respiratory Therapy Supervisor, the Laboratory Supervisor, and the Housekeeping Supervisor. The Hospital Administrator was excluded from data collection because she did not constitute a member of the "working body" of the group.

In each case the members of the group were interviewed by the experimenter to determine the types of tasks the groups were involved in undertaking in an ongoing situation. For each group four major tasks were isolated and used as

major headings of each questionnaire employed in data collection. Demographic data was also collected and will be discussed as it is relevant to the results of the study. Five measurements of "dependent" variables were obtained from the questionnaire data gathered. These were:

(1) Communication Dispersion Tendency (CDT): Three questionnaire entries were designed to determine the extent to which the group members felt it desirable to discuss the tasks presented with very few members of the group or with all of the members of the group.

(2) Goal Clarity (GC): Questionnaire entries were designed to determine the degree to which it was clear to the group members "what the group hoped to accomplish" by doing the given task.

(3) General Clarity of Path to Goal (GCP): Measurements were designed to determine the degree to which it was clear to group members that there was a certain procedure necessary for any group to follow in order to accomplish the given task.

(4) Specific Clarity of Path to Goal (SCP): Questionnaire entries were designed to determine the degree to which the specific procedure, in such a case, was clear to the group members.

(5) Perceived Specification of Task-Individual Relation-

ships (PSTR): The measurement was designed to determine whether the group members perceived that there were very few or very many individuals in their group who could make unique contributions to the accomplishment of the given task.

In the case of each group studied the questionnaire entries were repeated for each of the four major tasks presented. In other words, the questionnaire for each individual was a series of four questionnaires that differed only in the task description that was presented as the referent for each questionnaire. The instructions for completing the questionnaire were included in a cover sheet which also contained a statement from the experimenter to the effect that the management had given permission for the study to be conducted and assured the group members that the results would be confidential. Additionally, the specific instructions for completing the questions presented were read verbally by the experimenter to each subject.

Results

The scores for each measure obtained were analysed by multiple regression analysis. The criterion variable used was the Communication Dispersion Tendency Scores; the scores for all the other measures were used as the predictor variables. Various demographic data gathered was included in the analysis by the use of coded vectors.

In the case of the hospital group, the analysis indicated that the Perceived Specification of Task-Individual Relationships scores accounted for 36.56% of the variance in the Communication Dispersion Tendency scores. (significant at $p = .00001$) Additionally, in the hospital group there were two demographic variables that accounted for variance in the CDT scores. The experimenter, during the course of the initial interviews had collected information from the group members concerning the degree of general communication contact that the subjects felt that they normally had with other department heads. Three of the department heads were consistently ranked as those with which other group members had the most general contact. (They were the Comptroller/Purchasing Agent, the Business Office Manager, and the Head Nurse.) These three positions were considered as "central" positions by the experimenter and were contrast coded with all other positions in the hospital group. The distinction between group members thus defined as "central" and "peripheral" accounted for 12.86% of the variance in CDT scores. (significant at $p = .0068$)

The physical locations of the offices of the group members was also considered by measuring the distance from each office to the most central location of all the offices. This location was the closest to the Hospital Administrator's

office and the general conference room. The positions were trend coded by the distances measured. The linear trend accounted for 10.8% of the variance in CDT scores. (significant at $p = .0122$) In each case the more "peripheral" subjects as indicated by the sociometric measure and the measure of proximity tended toward higher CDT scores.

The analysis of the American Airlines Flight Academy group yielded no significant effects as the result of the demographic data gathered. The Goal Clarity scores did account for 16.83% of the variance in CDT scores. (significant at $p = .087$) (The author realizes that normally an arbitrary level of significance is set at $p = .05$. However, these results will be interpreted as "approaching" significance because it is profitable to consider the implications of the differences in the results between the two groups studied as compared to the differences in the organizational designs of the groups.)

Vectors for interaction effects were generated for each analysis, but no significant interaction effects were found.

Discussion of the Results

The results indicate that the Communication Dispersion Tendencies of the group members regarding the tasks presented are related to the group members' perceptions of those tasks. The hypothesis as stated earlier was not directly confirmed

in its entirety by either study, but each part of the hypothesis was confirmed by each group studied. The first part of the hypothesis stated that "as group members conceptualize a specific task as having a clear group goal and a clear group path to the goal" ... "they will have a greater tendency to communicate with more members of the group about the given task." The results of the analysis of the American Airlines group support this proposition in that, if the results can be considered significant at $p < .10$, about 17% of the variance in CDT scores was accounted for by the Goal Clarity scores. Since the General Clarity of Path to Goal and Specific Clarity of Path to Goal scores do not significantly account for variance in the CDT scores, the above portion of the hypothesis is only partially supported.

The second part of the hypothesis stated "as group members do not identify specific persons within their work group as having unique roles to play in the accomplishment of the task" ... "they will have a greater tendency to communicate with more members of the group about the given task." In so far as the questionnaire entry designed to measure Specification of Task-Individual Relationships can be interpreted to reflect the group members' perceptions of less specific individuals who are, by virtue of their

capabilities, able to make task specific contributions to the group effort, the results of the analysis of the data gathered from the Doctors' Community Hospital group strongly confirms this portion of the hypothesis. The PSTR scores accounted for about 37% of the variance in the CDT scores of the hospital group members.

The demographic variables in the hospital group that significantly accounted for a portion of the variance in the CDT scores were measures of "centrality" of a sociometric and spatial nature. Those group members which were more "peripheral," in the case of both measurements, tended to have higher CDT scores. These results correspond with the findings of Leavitt (1951) and the early theory of communication patterns and networks as expressed by Bavelas and Barrett (1951). Group members in more peripheral positions tend to perceive the group-task situation as less satisfactory and have a sense of impotency in influencing the groups' activities. One would expect, then, that such percepts would act as an impetus to motivating communication behavior on the part of peripherally positioned group members. Similar measures of centrality in the airlines group did not yield significant results possibly because of the smaller size of the group and because the majority of the group were located in one

central office.

The larger differences in results between the two groups can be explained by consideration of the differences in the general organizational situations of the groups. Essentially, the formal organizational design of the American Airlines group was oriented to the production of specific products. The Doctors' Community Hospital group, on the other hand, was organized along functional lines. There were, in fact, no tangible products produced as a result of the efforts of the group toward accomplishing the tasks presented on the questionnaires. The function oriented design of the hospital group is reflected in the titles assigned to the group members by the management. The airlines group members had no titles assigned other than the general designator of all group members as "audio-visual media specialists." The discussion by Walker and Lorsch (1968) of their study of the effects of the two types of organizational design is helpful in explaining the results of the present study. They found that the goal orientations of group members seemed to vary with the organizational design of the group as it was oriented along either functional or product lines. In a functionally structured organizational situation, the group members seemed to have "focused sharply on specialized

goals and objectives." (p. 132, my italics) In product oriented organizational situations, the group members' goals were more diffuse; group members seemed to more readily identify the relevance of other group members' different capabilities to the creation of the product. (p. 133) In other words, in functionally oriented situations, differentiation of capabilities was more salient whereas, in product oriented situations, integrative possibilities were more salient to group members.

A comparison of the means of the scores of both groups on variables indicates that there seem to have been differences in the way the group members generally perceived the task presented in each case. The mean scores for the hospital group for Goal Clarity, General Clarity of Path to Goal, Specific Clarity of Path to Goal were significantly higher than those of the airlines group. (respectively, $p < .001$, $p < .05$, $p < .05$) These differences may be interpreted to indicate that the goal percepts of the hospital group members were, on the average, sharper and more distinct and that goal orientations of the airlines group were more diffuse. mean Perceived Specification of Task-Individual Relations scores for the airlines group were significantly higher than those of the hospital group. ($p < .025$) (The scoring of t

PSTR scores was such that a higher score indicated less specification of perceived task-individual relationships.) The airlines group members, then, may have perceived less differentiation among the group members. It should be noted here that the correlations that resulted from the regression analysis indicate concomitant variation of scores. Therefore, even though the goal clarity scores were higher for the hospital group and the PSTR scores were higher for the airlines group, it is the relationships in variation of the scores that are taken to indicate correspondence in the percepts and the communication dispersion potentials. It is the theoretical effects of the variation in the percepts, rather than magnitude, which leads to the conclusion of difference in salience.

This information suggests that formal organizational structure, at least as related to a given hypothetical end result of group efforts, may have an indirect effect on the channeling of communication within the group. It seems that various situational elements may become more or less salient to group members as a result of either a product or functional orientation of organizational design. The mechanism of the effect might well be expressed as the percepts of the group members of the group situation in terms

of triadic relationships of (1) a group member's percept of his own relationship to the end result of the group's efforts, (2) the relationship of any other given group member to that end result.

In the case of members of a functionally oriented group, the results of the present study suggest that such hypothetical triads of a symbiotic nature may be more salient to group members. Since, in the case of the hospital group, there was significant concomitant variation in the CDT and PSTR scores, it may be theorized that differentiation among specialties was more salient to the group members; that as they perceived less differentiation among group members, a percept would be formed which would be discrepant with their prevalent percept of the group situation, therefore motivating a potential for more diffuse communication behavior. If, on the other hand, synergistic or integrative relationships are more salient in product oriented groups, the results of the analysis of the airlines group indicate that as the goals of the group are perceived as more distinct, a discrepancy in that percept and the prevalent one would motivate a greater communication dispersion tendency. Greater saliency of the differentiation of group members' capabilities should run counter to the normally perceived

integrative concept.

Generally, the results of the study indicate that (1) group members percepts of the group's tasks may effect their ability to develop a general communication network that has the potential to mutate to the optimal network necessary to bring both the synergistic and symbiotic capabilities of the group to bear on task accomplishment, (2) that the elements of the task that are the most salient to group members may be, in part, determined by the general organizational design of the group situation, and (3) percepts of task that seem to effect the communication dispersion potential of group members, do so as they may be compared to the most salient percepts generated by the general organizational design.

The implications of these results are that better integration and adaptation of group members' capabilities might be achieved through study and design of organizational structure with a view toward determining and bringing to bear the effects of organizational designs on group members' perceptions of the elements of task as related to the individual capabilities of the group members. Additionally, the rhetoric of management might be made more effective by consideration of its relevance to generating percepts of

tasks. There are various rhetorical mechanisms available to management, such as employee orientation and training programs, direct statements of organizational purposes and goals, job specification and description, and position titling. If through further research, the elements of task could be more carefully dimensioned, perhaps these and other mechanisms could be more effectively employed in achieving organizational effectiveness.

References

- Barnlund, D., & Harland, C. Propinquity and prestige as determinants of communication networks. Sociometry, 1963, 26(4), 467-79.
- Bavelas, A. Communication patterns in task-oriented groups. In D. Cartwright & A. Zander (Eds.), Group dynamics. New York: Harper and Row, 1968.
- Bavelas, A., & Barrett, D. An experimental approach to organizational communication. Personnel, 1951, 27(5), 366-71.
- Christie, L., Luce, R., & Macey, J., Jr. Communication and learning in task-oriented groups. Technical Report No. 231, Research Laboratory of Electronics, Massachusetts Institute of Technology, May 13, 1952.
- Cohen, A. Communication networks: in research and training. Personnel Administration, 1964, 27(3), 18-24.
- Cohen, A., & Bennis, W. Continuity of leadership in communication networks. Human Relations, 1961, 14(4), 351-67.
- Collins, B. E., & Guetzkow, H. A social psychology of group processes for decision-making. New York: John Wiley and Sons, Inc., 1964.

- Dalton, G. W., Paul, R., & Lorsch, J. W. Organizational structure and design. Homewood, Ill.: Irwin-Dorsey Limited, 1972.
- Davis, H. Group performance. Reading, Mass.: Addison-Wesley Pub. Company, 1969.
- Davis, K. A method of studying communication patterns in organizations. Personnel Psychology, 1953, 6(3), 301-12.
- Eisman, B. Some operational measures of cohesiveness and their interrelations. Human Relations, 1959, 12, 183-89.
- Festinger, L., Schachter, S., & Back, K. Social pressures in informal groups. New York: Harper, 1950.
- Fisher, A. Communication research and the task-oriented group. The Journal of Communication, 1971, 21, 136-49.
- Guetzkow, H. Differentiation of roles in task-oriented groups. In D. Cartwright & A. Zander (Eds.), Group dynamics. New York: Harper and Row, 1968.
- Guetzkow, H., & Dill, W. Factors in the development of task-oriented groups. Sociometry, 1957, 20, 175-204.
- Guetzkow, H., & Simon, H. The impact of certain communication nets upon organization and performance in task-oriented groups. Management Science, 1955, 1, 233-50.
- Heise, G., & Miller, G. Problem solving by small groups using various communication nets. Journal of Abnormal and Social Psychology, 1951, 46, 327-36.

- Lawson, E. Change in communication nets, performance, and morale. Human Relations, 1965, 18(2), 139-47.
- Leavitt, H. Some effects of certain communication patterns on group performance. Journal of Abnormal and Social Psychology, 1951, 46, 38-50.
- Raven, B. H., & Reitsema, J. The effects of varied clarity of group goal and group path upon the individual and his relation to his group. Human Relations, 1957, 10, 29-44.
- Shaw, M. Some effects of unequal distribution of information upon group performance. Journal of Abnormal and Social Psychology, 1954, 49, 547-553.
- Stinson, J., & Hellebrandt, E. Group cohesiveness, productivity, and strength of formal leadership. The Journal of Social Psychology, 1972, 87, 99-105.
- Stogdill, R. Group productivity, drive, and cohesiveness. Organizational Behavior and Human Performance, 1972, 8, 26-43.
- Thayer, L. Communication and communication systems. Homewood, Ill.: R. D. Irwin, Inc., 1968.
- Walker, A. H., & Lorsch, J. W. Organizational choice: product vs. function. Harvard Business Review, 1968, 46(4), 129-38.
- Weick, I. Laboratory experimentation with organizations. In J. C. March (Ed.), Handbook of organizations. Chicago: Rand McNally, 1965.

Weicksberg, A. Communication networks in the business organization structure. Academy of Management Journal, 1968, 11(3), 253-62.

Zaleznik, A., & Moment, D. The dynamics of interpersonal behavior. New York: J. Wiley and Sons, Inc., 1964.